

**CONSOLIDATING E-911 NOTIFICATION/DISPATCH CENTERS
IN WESTCHESTER COUNTY, NEW YORK**

STRATEGIC MANAGEMENT OF CHANGE

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ABSTRACT

The problem was that the lack of a unified E-911 notification and dispatch system in Westchester County New York could create delays in responding to Fire and EMS emergencies.

The purpose of this applied research project was to develop a plan to consolidate the separate notification and dispatch systems in Westchester County into a more consolidated, state-of-the-art notification system for Fire and EMS departments. Evaluating the existing E-911 notification and dispatch systems in Westchester County, as well as the 62 counties in New York, and developing a plan for their consolidation would accomplish this. Action research methods were employed to answer the following research questions:

1. What is the current makeup of the E-911 notification and dispatch system for Fire and EMS in Westchester County?
2. What is the current makeup of the E-911 notification and dispatch systems in the other 61 counties in New York and how does Westchester compare?
3. What are the advantages to a consolidated E-911 notification and dispatch system for responders and customers?
4. What are the restraining forces to a consolidated E-911 notification and dispatch system and how can they be addressed?

The procedures used to complete this research project was to first conduct an extensive review of current literature sources on consolidation of communications centers as well as a historical literature review of the current system used in Westchester County. Then a survey of all 62 counties in New York State was distributed to gather information on the makeup of their current E-911 notification and dispatch systems. Next priorities were set and objectives established that allowed the researcher to analyze the problem.

The results of the research showed the many advantages of consolidating communication centers and methods that can be used to address restraining factors to consolidation. It was also shown that the Westchester County E-911 notification and dispatch system for fire and EMS response uses by far a greater number of Public Safety Answering Points than any other New York State countywide jurisdiction.

Recommendations included a reevaluation of the current E-911 system in Westchester County and a phased in process for improving this system.

TABLE OF CONTENTS

| | |
|--|-----------|
| ABSTRACT | 2 |
| TABLE OF CONTENTS | 4 |
| INTRODUCTION | 5 |
| BACKGROUND AND SIGNIFICANCE | 5 |
| LITERATURE REVIEW | 9 |
| PROCEDURES | 14 |
| RESULTS | 18 |
| DISCUSSION | 25 |
| RECOMMENDATIONS | 27 |
| REFERENCES | 28 |
| APPENDIX A (Consolidation Plan for E-911) | 30 |
| APPENDIX B (E-911 Notification/Dispatch Survey) | 31 |
| APPENDIX C (E-911 Notification/Dispatch Survey Results) | 33 |
| APPENDIX D (Change Management Model) | 35 |

INTRODUCTION

The problem is that the lack of a unified E-911 notification and dispatch system in Westchester County New York can create delays in responding to Fire and EMS emergencies.

The purpose of this applied research project is to develop a plan to consolidate the separate notification and dispatch systems in Westchester County into a more consolidated, state-of-the-art notification system for Fire and EMS departments. Evaluating the existing E-911 notification and dispatch systems in Westchester County, as well as the 62 counties in New York, and developing a plan for their consolidation will accomplish this. Action research methods are employed to answer the following research questions:

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BACKGROUND AND SIGNIFICANCE

Westchester County New York is one of sixty-two counties in the state. New York City shares its southern border, Connecticut its eastern border, the Hudson River is the border to the west and Putnam County is the neighbor to the north. Westchester County has 450 square miles of landmass with a population of 924,000 according to the 2000 census (Westchester, 2001).

New York is a “home rule” state therefore Westchester County, as well as all other counties in the state, is comprised of various forms of government at the local level. There are six city, fifteen town and twenty-two village forms of government in Westchester County, according to Databook 2001, that provide the appropriate level of services as determined by the citizens who reside in that jurisdiction. On the county level, government provides the services that transverse municipal lines such as health services, law enforcement to parks and county properties, the coordination of fire and EMS services and many other countywide services.

The concept of E-911 in Westchester County was initially proposed in 1974 but at that time the telephone system required a single Public Safety Answering Point (PSAP) and this caused insurmountable problems. Then in 1984 NY Telephone made E-911 available statewide and the County Executive at that time, Andrew O’Rourke, formed an E-911 Task Force to explore the design options and come back with recommendations for implementing such a countywide system (J.Hand, personal communication, December 6, 1998).

In October of 1986 a final proposal from the Task Force was sent to the County Executive who, in early 1987, forwarded this proposal to the Board of Legislators (BOL) for their review. In the BOL hearings, commencing in the summer of 1987, a number of local issues were discussed among municipal officials, police, fire and EMS agencies in an attempt to determine the best E-911 system for Westchester County. Municipal officials spoke loudly stating that they wanted to maintain their own emergency dispatching through their local police departments. In a report from the E-911 Executive Implementation Committee (personal communications, December 1, 1989) this concept of a decentralized system, where dispatching was to occur at the local level so they would be accountable to local officials, was again strongly voiced by municipal leaders.

Police, fire and EMS agencies took opposite stands on a centralized versus a decentralized form of an E-911 notification and dispatch system for Westchester County. On one hand, police agencies believed the best option was to have a decentralized call taker system where all the 911 calls would continue to be routed to the appropriate local police department due to the complexity of the different agencies in the county (NY State Federation of Police, personal communication, October 6, 1989). Police would then prioritize the calls and forward fire and or EMS calls to regional dispatch centers (D. Scribner, personal communication, October 13, 1989). This support of a decentralized E-911 system would be limited to no more than fifty-two PSAP's in Westchester County (Westchester County Chief of Police Association, personal communications, November 17, 1989).

On the other hand, the Westchester County Fire Council (personal communication, December 14, 1988) did not support the decentralized proposal for fifty-two local police PSAP's for E-911. This organization felt a centralized/regional approach would best suit the needs of both fire and EMS services. Catherine Radi, President of the Association of Fire Districts, (personal communication, October 18, 1989) agreed that the regional approach was the most viable and cost effective approach to implementing an E-911 system. The six large cities, stated Ms. Radi, should retain their own PSAP and the rest of the county should be regionalized into 3 or 4 PSAP's. Finally, the Westchester County Volunteer Fireman's Association (personal communication, October, 1989) and Timothy Haydock, President of the Westchester County EMS Council (personal communications, October 24, 1989), supported a centralized/regional dispatch system with the major cities having their own PSAP and the rest of the county divided into regions.

The end result on this divided issue was that County Executive Andrew O'Rourke accepted the recommendation of the E-911 Executive Implementation Committee, that he appointed in July of 1989 to work with the NY Telephone Company, to implement a decentralized E-911 system for Westchester County (A. O'Rourke, personal communication, January 5, 1989). A countywide decentralized network of PSAP's was determined to be the most operationally feasible model. This model included 38 primary and 14 secondary PSAP's to answer all 911 calls (E-911 Task Force, personal communications, November, 1986). Then, after prioritizing 911 calls, local police will either dispatch the fire or EMS agency or transfer the call to the county dispatch center, 60 Control, to dispatch fire or EMS agencies that have agreements with the county to provide this service.

The current E-911 notification/dispatch system permits police call takers, who receive all 911 calls in Westchester County, to prioritize E-911 fire, EMS and law enforcement calls for dispatching. Many times local police personnel are dispatched to a scene to determine the need for fire or EMS response prior to forwarding the call to the appropriate dispatch agency or dispatching the appropriate apparatus. This policy can create unacceptable delays in emergency equipment and personnel response to the scene of various emergencies where medical, rescue or other specialized expertise is needed in a timely manner (M.Volk, personal interview, October 20, 2001). As the need for timely and appropriate fire and or EMS emergency response grows in Westchester County it becomes apparent that any undue delay can cause life-threatening consequences for the person in need of these services.

This research paper is written to complete the research component of the Strategic Management of Change course in the Executive Fire Officer Program at the National Fire Academy in Emmitsburg, Maryland. Evaluating the E-911 notification/dispatch system and

planning for a major change to this system relates directly to Modules: 2 & 3- Managing and Leading Change, in the course curriculum.

LITERATURE REVIEW

A review of various literature sources including magazines, professional journals, books, newsletters, the Internet, surveys, personal communications and previous research papers is conducted. These sources are the basis for answering the following research questions: (a) the current makeup of the E-911 notification and dispatch system for fire and EMS in Westchester County, (b) the current makeup of the E-911 notification and dispatch systems in the other 61 counties in New York and how Westchester compares, (c) the advantages to a consolidated E-911 notification and dispatch system for responders and customers, (d) the restraining forces to a consolidated E-911 notification and dispatch system and how they can be addressed.

Through this literature review an understanding of the need for a consolidated E-911 notification/dispatch system for fire and EMS responses is highlighted. The review also points out restraining factors and how they can be addressed as well as advantages to a consolidated system. Finally, a recommended plan is developed for the consolidation of an E-911 notification/dispatch in Westchester County that is designed to reduce response time for fire and EMS agencies.

Current E-911 System for Fire and EMS in Westchester County

Westchester County, being a home rule county, is comprised of a variety of systems designed to receive and dispatch fire and EMS agencies. When the current E-911 system was established in the late 1980's, and prior to that using the old emergency notification system, all requests for emergency assistance went and still go to the local police agency having jurisdiction (J. Hand, personal communication, December 6, 1988). Westchester County provides a

countywide dispatch system that is offered to all fire and EMS agencies known as 60 Control. This secondary PSAP receives transferred E-911 calls from the local police departments for departments that have contracted for 60 Control to do their dispatching. If the county, through 60 Control, does not dispatch a department the appropriate dispatching agency will then handle the call.

Westchester County System Compared to the Other 61 Counties in New York

To compare the E-911 notification and dispatch system for Fire and EMS to the other 61 counties a survey is sent to each county Fire Coordinator asking for a description of the way their system operates (see Appendix B). The results of this survey are seen in Appendix C.

Advantages to a Consolidated E-911 Notification and Dispatch System

Advantages to consolidating communications centers occur in a number of areas. First, budget savings occur through economies of scale when one communications center verses numerous centers are employed (“Departmental Overview,” 2000). “Anytime you have to duplicate office space, utilities, maintenance contracts and anything else associated with running an office while providing the same service.... It’s a disservice to the taxpayers” (Arrington, 2001). Public monies are shrinking and will continue at a rapid rate. Taxpayers are taxed out and public officials strive to attain a specific level of service for citizens at the lowest cost possible (Johnson & Snook, 1997). Therefore, cooperation is a common-sense approach to stretching tax dollars and avoiding duplication of efforts and resources (Goshen News, 2001). Fort Thomas Mayor Mary Brown stated, “If we can see we can provide more complete service at a lower cost, it has to be beneficial to our residents” (Schaefer, 2000).

Fiscal considerations have historically been one of the primary motivations for exploring some type of cooperative effort. Chief Rick Tyre points out that, “Financial necessity is the

mother of all innovation”(Johnson & Snook, 1997). Gregg Feagano, Emergency Management Director in Sarasota County Florida, commented on the issue of consolidation by stating, “We naturally started saving money by cutting costs to run a lot of centers as opposed to one. Then, we started saving with the elimination of extra equipment and staff” (Plate, 1996). Naturally, when duplication of services is eliminated both personnel and operational expenses are lowered (Daily Sentinel, 1996). Pension, workers compensation and health insurance costs are just a few of the costs that are lowered by reducing staff through consolidation (Holt, 1990).

Cost savings cannot be the sole reason to consolidate or not. Communications centers whole reason for existence is to offer a service to the public. It is conceivable that consolidation might be a good idea if services will be greatly improved, even if monetary savings are not overwhelming (Hagstrom, 1999). Communications Centers sell only one product: service. As public servants, we must continually seek out ways to supply a high-quality product at either the same cost or reduced cost. We owe it to our customers (Johnson & Snook, 1997). Therefore, another benefit of consolidating communications centers that must be considered, aside from fiscal savings, is improved service levels. According to Chief’s Jeffery Johnson and Jack Snook (1997), of Emergency Services Consulting Group, creating a countywide department improved service levels, response times and reduced the cost of doing business.

Next, a consolidated dispatch center will eliminate thousands of calls a month being placed to the wrong emergency agency (Rausch, 1999). George Beverly, District Chief of the Lockport Fire Protection District, found that 911 calls could be handled in a timelier manner through the consolidation of communications centers thus eliminating delays that happen when 911 calls are transferred from center to center (Fox, 2001). This delay causes a loss in valuable response time by emergency providers in the field (Plate, 1996). Not only is time lost but

valuable information could also be lost when transferring calls between several dispatchers, observed Stanley Police Chief Jerry Petefish (Arrington, 2001). Service is also improved when the coordination of response to incidents by more than one emergency discipline is provided through a common center (“Departmental Overview,” 2000). Common centers allow for greater consistency of dispatch, call documentation and provide a greater uniformed management of emergency calls (Osborne, 1999).

Finally, better-trained dispatchers, using state-of-the-art Computer Aided Dispatch (CAD) technology, are available to large centers. Many small-to-medium sized jurisdictions have found it difficult to allocate the funds needed to upgrade to this new technology and provide the necessary training to their dispatchers (NFPA, 1997).

Restraining Forces to Consolidated and How They Can Be Addressed

The mere word “*Consolidation*” for some reason, according to Lt. Dario Valente, tends to send shivers down our spines (Lorow, 1997). The thought of consolidation or having to merge the department you’ve called yours for years can also cause tremendous anxiety among those involved in the process (Johnson & Snook, 1997). “To some extent, we all possess a fear of the unknown and a tendency to defend our territory,” states Corporate Director of TransAlta Utilities Corporation Marshall Williams (1991). The challenge is to raise the awareness of all employees about the need for change and increase their propensity to adapt to the required changes. The removal of this fear is the primary challenge of management (Williams, 1991).

Restraining forces to consolidations, in addition to the fear factor, tend to fall into a number of categories. First, “turf” issues surround not wanting to give up what you have (Johnson & Snook, 1997). St. Louis Deputy Chief Frank Schaper (1998) observed, “In many jurisdiction consolidation of fire departments and or EMS or dispatching offices is painfully

obvious. But more often than not, the obvious is overruled by the insane. Pride, Power and Greed are certainly alive and well in today's public safety sector". There is also a common feeling that no one can dispatch our people better than we can. There is the perception of a loss of control that comes about through consolidation (Fox, 2001). This can be seen in Westchester County as local governments favored a decentralized dispatch system at the local level using their own dispatchers who would be accountable to their local officials and department (E-911 Executive Implementation Committee, personal communications, December 1, 1989).

A second restraining force is the ever-present political arena. "Consolidation is really a political issue," stated Lt. Valante (Lorow, 1997). Elijah Titus, Director of projects for Public Safety Systems Inc., points out that while integrated call centers are the trend today sometimes politics prevent this integration (Wilcox, 1997). This political issue was present in the formation of the multiple PSAP's, 52 in all, in Westchester County (E-911 Executive Implementation Committee, personal communications, December 1, 1989). Parochialism and a desire to appease local municipalities who were not willing to give up employees and control won over common sense (Daily Sentinel, 1996).

Other restraining factors surround the differences in collective bargaining agreements among merging centers ("Departmental Overview," 2000). These differences in contract, pay and conflicting language, especially the different uses of codes when dispatching, create tension and an unwillingness to change among employees (Gourley, 1999).

In order to address the restraining forces to consolidation the change agent, the person or persons who desire to make the change, must manage and facilitate the anticipated change by adopting certain behaviors. The change agent must take on four distinct roles to manage and facilitate in order to address the restraining forces. These roles are as a "communicator", through

the use of constant open lines of communication to all parties; as a “collaborator”, allowing others to become involved and educated in the process; a “demonstrator”, providing a model for others to follow throughout the change process; and finally as an “educator”, leading an educational process that informs everyone of the purpose, reason and effects of the change (FEMA, 2001).

To facilitate the change to a consolidated E-911 system and overcome restraining forces the change agent must follow the Change Management Model in Appendix D (FEMA, 2001). The change, in this project consolidation, goes through the process of analysis, planning, implementation and finally evaluation/institutionalism. Here the roles of the change agent manage the process and help to breakdown the barriers to consolidation; the restraining forces previously mentioned (FEMA, 2001).

PROCEDURES

Definition of Terms

BOL. The Board of Legislators consists of 17 members representing the 17 different elected political divisions within Westchester County.

CAD. Computer Aided Dispatch is a computer-generated program used to aid dispatchers with the dispatching of emergency apparatus to calls in Westchester County.

E-911. Enhanced 911 is a telephone communication system by which citizens call for aid in police, fire or medical emergencies. This system has the ability to identify the caller by address and phone number once the call is received.

Home Rule. This term defines the type of government that is present in New York State and all of its 62 counties. Home rule places the responsibility for governance of towns, villages and cities on the individual municipality rather than county government.

Mutual Aid. This is a formal written agreement among municipal fire and EMS departments to provide and receive aid in emergencies when requested through the county communications center.

PSAP. The Public Safety Answering Point is the location where all 911 calls are answered. In Westchester County there are 38 primary and 14 secondary answering points. Primary answering points both receive and dispatch 911 calls. Secondary answering point only take transferred 911 calls from PSAP's and then dispatch calls.

60 Control. This refers to the Westchester County Communications Center that does all Mutual Aid dispatching as well as dispatching for communities that have agreements with the county. 60 Control is a secondary PSAP. The alphabetical number of the county designates all county control centers in New York with Westchester being the 60th county, alphabetically, in the state.

Limitations

Once this research project was started the researcher discovered a few limiting factors for which he had no control over and which might have a negative affect on the end results. First, anytime a survey is conducted the researcher has no control over the rate of return or accuracy of that survey. The information survey used in this research project had a 97% return rate and was accepted as accurate for information purposes.

A second limitation is that the researcher was not present during the formation of the E-911 notification and dispatch system in Westchester County. Therefore, the researcher had to rely on numerous personal communications from which to piece together the chronological timeline for this project. The researcher also had to take these correspondences on face value and at times interpret the intention of the sender.

Finally, the bias of the researcher was a limiting factor in this research. This research looked at both fire/EMS and police points of view in the creation of the current notification and dispatch system in Westchester County. Having been in the fire service for 27 years and being aware of the different ways police and fire/EMS view issues the researcher may not be as objective as one should be to draw a unbiased conclusion.

Research Methodology

Upon starting the research for this project the researcher first rechecked the problem statement for clarity and comprehensiveness. The problem, the lack of a unified E-911 notification and dispatch system in Westchester County New York can create delays in responding to fire and EMS emergencies, is found to be clearly stated. The problem is also found to be sufficient enough to allow for replication by other counties or departments by comparing their current E-911 notification and dispatch system with the findings of this study.

The purpose of this applied research project is to develop a plan to consolidate the separate notification and dispatch systems in Westchester County into a more consolidated, state-of-the-art notification system for fire and EMS departments. Evaluating the existing E-911 notification and dispatch systems in Westchester County, as well as the 62 counties in New York, will help develop this plan. The purpose is addressed through a two-pronged approach: extensive action research that gathers information through literature reviews on the advantages and restraining factors associated with consolidation and an evaluation of different systems E-911 notification and dispatch systems used in Westchester County and throughout New York State. This information is then compared to the existing notification and dispatch E-911 system in place in Westchester County. From this comparison a recommendation, in the form of a

formal plan, is developed and presented to the County Executive for his review and possible implementation.

A situational analysis is not found to be necessary in this project.

Priorities are then set and objectives established that allow the researcher to analyze the problem. The first priority for this project is to research and understand the history of and reasons behind the formation of the current E-911 notification and dispatch system in Westchester County. Knowing how the current system evolved and the forces behind its establishment provides the researcher the insight on how to develop a plan for future changes to the system. This knowledge is gained through the review of historical documents, correspondences and legislative proposals and is stated in this document. The second step is to conduct a survey of each county in New York State. This service is designed to illicit information on the makeup of their current E-911 notification and dispatch system. This survey is found in Appendix B and the results are displayed in Appendix C. Next, literary research is conducted on the advantages of consolidation of similar services and the restraining forces that resist such consolidation with ways to address these restraining forces. Finally, a plan is developed, based on these findings, as to how and why Westchester County should consider a consolidation of E-911 notification and dispatch services for the fire and EMS departments. This plan is found in Appendix A.

This research plan is then implemented and monitored to ensure the necessary research is completed and the results put together in a timely manner.

The outcomes of this process are evaluated and provide the basis for the recommended changes as set forth in this research project.

RESULTS

The recommendation for consolidating all E-911 notification and dispatch systems in Westchester County is found in Appendix A.

Answers to Research Questions

Research Question 1. The current E-911 notification and dispatch system for Fire and EMS departments in Westchester County has a long history behind its formation. Through the recommendations of the 911 Executive Implementation Committee in 1989 Westchester County has 52 PSAP's that answer all E-911 calls placed in the county (personal communications, December 1, 1989). These PSAP's are located at local police departments having jurisdictions in the area of the 911 call (J. Hand, personal communication, December 6, 1988). Once the 911 call is answered and determined that it is for fire/EMS services it is either dispatched by the local police department or transferred to the County Communications Center, 60 Control, for departments who contract for dispatch by 60 Control (M.Volk, personal interview, October 20, 2001). Table 1 shows the breakdown of how fire and EMS agencies currently deal with their dispatching needs.

The County Communications Center, 60 Control, is responsible for all Mutual Aid requests from both fire and EMS agencies. If any department is in need of assistance from another jurisdiction these requests are made through 60 Control who monitors the call from the time of the request through its completion (M.Volk, personal interview, October 20, 2001).

Table 1
Dispatch Agencies Breakdown in Westchester County

| Agency | Westchester County | Non-Westchester County | | |
|--------|--------------------|------------------------|-----------------|-------|
| | 60 Control | Local Police | Self-Dispatched | Other |
| Fire | 37 | 8 | 14 | 1 |
| EMS | 11 | 25 | 7 | 0 |

Note: Figures are based on data kept by the Department of Emergency Services at 60 Control

Research Question 2. The makeup of the E-911 notification and dispatch systems in the other counties throughout New York, to say the least, is diverse. The results of the survey in Appendix B are seen in the Survey Results chart in Appendix C. Here it can be seen that the number of PSAP's vary from as few as one countywide PSAP to as many as 52 PSAP's in Westchester County. Table 2 shows the breakdown of the number of PSAP's per county in New York as a result of the survey.

From this survey it is seen that 93 % of all counties responding to the survey use fewer than 9 PSAP's to handle their E-911 notification calls with the vast majority using 4 or fewer. Furthermore, 98% of the counties use a fewer number of PSAP's than Westchester County's 52 with the average number of PSAP's in a county within the state at 3.7 compared to the 52 PSAP's in Westchester County.

Table 2
Public Safety Answering Points (PSAP)

| <u>PSAP's /County</u> | <u>Number of Counties</u> | <u>% of Total (rounded)</u> |
|-----------------------|---------------------------|-----------------------------|
| 1 – 4 | 46 | 82 |
| 5 – 9 | 6 | 11 |
| 10 – 20 | 1 | 2 |
| 20 – 30 | 2 | 3 |
| Over 30 | 1 | 2 |

Note: 1. Two counties did not answer the survey
 2. There is only 1 PSAP for the 5 Boroughs of New York City but they are each considered a separate jurisdiction in this survey
 3. The percent is based on 56 counties

Research Question 3. There are many advantages to a consolidated E-911 notification and dispatch system for responders and customers in Westchester County. Fiscal considerations have historically been one of the primary motivations for exploring some type of cooperative effort. Chief Rick Tyre points out that, “Financial necessity is the mother of all innovation”(Johnson & Snook, 1997). Gregg Feagano, Emergency Management Director in Sarasota County Florida, commented on the issue of consolidation by stating, “We naturally started saving money by cutting costs to run a lot of centers as opposed to one. Then, we started saving with the elimination of extra equipment and staff” (Plate, 1996). Naturally, when duplication of services is eliminated both personnel and operational expenses are lowered (Daily Sentinel, 1996). Pension, workers compensation and health insurance costs are just a few of the costs that are lowered by reducing staff through consolidation (Holt, 1990).

Next, economies of scale are realized when one communications center verses numerous centers are employed (“Departmental Overview,” 2000). “Anytime you have to duplicate office space, utilities, maintenance contracts and anything else associated with running an office while providing the same service.... It’s a disservice to the taxpayers” (Arrington, 2001). Public monies are shrinking and will continue at a rapid rate. Taxpayers are taxed out and public officials strive to attain a specific level of service for citizens at the lowest cost possible (Johnson & Snook, 1997). Therefore, cooperation is a common-sense approach to stretching tax dollars and avoiding duplication of efforts and resources (Goshen News, 2001). Fort Thomas Mayor Mary Brown stated, “If we can see we can provide more complete service at a lower cost, it has to be beneficial to our residents” (Schaefer, 2000).

Better service is another advantage of a consolidated dispatch center. Consolidation will eliminate thousands of calls a month being placed to the wrong emergency agency (Rausch, 1999). George Beverly, District Chief of the Lockport Fire Protection District, found that 911 calls could be handled in a timelier manner through the consolidation of communications centers thus eliminating delays that happen when 911 calls are transferred from center to center (Fox, 2001). This delay causes a loss in valuable response time by emergency providers in the field (Plate, 1996). Not only is time lost but valuable information could also be lost when transferring calls between several dispatchers, observed Stanley Police Chief Jerry Petefish (Arrington, 2001). Service is also improved when the coordination of response to incidents by more than one emergency discipline is provided through a common center (“Departmental Overview,” 2000). Common centers allow for greater consistency of dispatch, call documentation and provide a greater uniformed management of emergency calls (Osborne, 1999). Finally, better-trained dispatchers, using state-of-the-art Computer Aided Dispatch (CAD) technology, are available to

large centers. Many small-to-medium sized jurisdictions have found it difficult to allocate the funds needed to upgrade to this new technology and provide the necessary training to their dispatchers (NFPA, 1997).

In the end, cost savings cannot be the sole reason to consolidate or not. A Communication centers whole reason for existence is to offer a service to the public. It is conceivable that consolidation might be a good idea if services will be greatly improved, even if monetary savings are not overwhelming (Hagstrom, 1999). Communications Centers sell only one product: service. As public servants, we must continually seek out ways to supply a high-quality product at either the same cost or reduced cost. We owe it to our customers (Johnson & Snook, 1997). Therefore, another benefit of consolidating communications centers that must be considered, aside from fiscal savings, is improved service levels. According to Chief's Jeffery Johnson and Jack Snook (1997), of Emergency Services Consulting Group, creating a countywide department improved service levels, response times and reduced the cost of doing business.

Research Question 4. Through the researchers literature review it is found that the restraining forces to consolidations tend to fall into a number of categories. First, "turf" issues surround not wanting to give up what you have (Johnson & Snook, 1997). There is a common feeling that no one can dispatch our people better than we can. There is also the perception of a loss of control that comes about through consolidation (Fox, 2001). St. Louis Deputy Chief Frank Schaper (1998) observed, "In many jurisdiction consolidation of fire departments and or EMS or dispatching offices is painfully obvious. But more often than not, the obvious is overruled by the insane. Pride, Power and Greed are certainly alive and well in today's public safety sector". This can be seen in Westchester County as local governments favored a

decentralized dispatch system at the local level using their own dispatchers who would be accountable to their local officials and department (E-911 Executive Implementation Committee, personal communications, December 1, 1989).

A second restraining force lies in the ever-present political arena. “Consolidation is really a political issue,” stated Lt. Valante (Lorow, 1997). Elijah Titus, Director of projects for Public Safety Systems Inc., points out that while integrated call centers are the trend today sometimes politics prevent this integration (Wilcox, 1997). This political issue was present in the formation of the multiple PSAP’s, 52 in all, in Westchester County (E-911 Executive Implementation Committee, personal communications, December 1, 1989). Parochialism and a desire to appease local municipalities who were not willing to give up employees and control won over common sense (Daily Sentinel, 1996).

Other restraining factors surround the differences in collective bargaining agreements among merging centers (“Departmental Overview,” 2000). These differences in contract, pay and conflicting language, especially the different uses of codes when dispatching, create tension and an unwillingness to change among employees (Gourley, 1999).

The mere word “*Consolidation*” for some reason, according to Lt. Dario Valente, tends to send shivers down our spines (Lorow, 1997). The thought of consolidation or having to merge the department you’ve called yours for years can also cause tremendous anxiety among those involved in the process (Johnson & Snook, 1997). “To some extent, we all possess a fear of the unknown and a tendency to defend our territory,” states Corporate Director of TransAlta Utilities Corporation Marshall Williams (1991). The challenge is to raise the awareness of all employees about the need for change and increase their propensity to adapt to the required changes. The removal of this fear is the primary challenge of management (Williams, 1991).

Through the research process the researcher found that there are ways to address the mentioned restraining forces to change in the consolidation of a decentralized E-911 notification and dispatch system in Westchester County. The first way to address restraining forces to change is through the use of the four roles of a change agent found in the FEMA Student Manual; Strategic Management of Change (2001). First, as a communicator the change agent must work to establish open the lines of communication between the different parties, recognize their concerns and diffuse rumors that are bound to be present. This communication leads to collaboration, the second role, which allows involvement from both sides and open discussion to gather input and suggestions, pro and con, to consolidation. Through this process the third role of the change agent, that of a demonstrator, is vital to changing or modifying the restraining forces. By modeling the expected behavior of both sides and providing a model for others to follow, the change agent demonstrates their involvement in the process. Finally, this entire process is geared to accomplishing the fourth role, that of an educator. In order to breakdown the restraining forces to consolidation everyone must be aligned to the purpose, reasons and positive benefits of the change. They must be shown and made to understand the “larger picture” and the advantages of the consolidation. This can only be accomplished through a comprehensive educational program that stresses the advantages and breaks down the restraining forces to change (FEMA, 2001).

The second way to address the restraining forces is through the use of the Change Management Model, used throughout the FEMA Student Manual; Strategic Management of Change (2001) and seen in Appendix D. Each of these forces must be analyzed for their relationship to consolidation, planned to see how they fit into or affect the change, implemented to determine if they will work and then evaluated to make sure the elimination of the restraining force becomes part of a successful consolidation.

Appendix A contains the final recommendations of this research project. A copy of this report, along with the recommendations, is to be sent to the Westchester County Executive, Andrew J. Spano for his review and consideration for implementation.

DISCUSSION

It is obvious to the researcher that, through the results of the survey (Appendix B) distributed to the 62 counties in New York on the makeup of their E-911 notification and dispatch system; Westchester County uses an excessive number of PSAP's. Table 2 shows that Westchester is one of only 4 counties that uses more than 9 countywide PSAP's for E-911 notification and dispatch. This represents 7% of the counties in the study and is the only county to use more than 29 PSAP's in any one county system.

The researcher agrees with Johnson and Snook (1997) that public monies are shrinking and taxpayers are taxed out. It is time to examine the economies of scale ("Departmental Overview" 2000) that are seen when consolidating from many to one communications center in any county or jurisdiction. Duplication of office space, utilities, maintenance contracts and other related items and services related to running an office does a disservice to taxpayers (Arrington, 2001). The reduction of staff, pensions, workers compensation and health costs by using fewer employees when consolidation takes place are just a few ways to lower costs and stretch the shrinking tax dollar (Holt, 1990).

Communications centers exist for one purpose, to provide a service to responders and citizens alike (Johnson & Snook, 1997). This researcher agrees with Chiefs Jeff Johnson and Jack Snook (1997) that as public servants we owe it to our customers to continually seek out ways to supply a high quality product at either a reduced or same cost. Westchester County must

look towards consolidation of E-911 notification and dispatch services to reduce the cost of duplicate services that are passed on to its taxpayers.

How is this done since, “Consolidations is really a political issue”? (Lorow, 1997). The researcher believes that educating the same politicians that are part of the restraining forces, as seen in the literature review opposing consolidation, is the key to success. This education is part of the role of the change agent in addressing the restraining factors that exist towards consolidation (FEMA, 2001). The researcher also believes the designated change agent must eliminate what Johnson & Snook (1997) refer to in their book as “turf” issues through this educational process. The feeling that no one can dispatch our people better than we can, the perception of loss of control and accountability of dispatchers and not wanting to give up what you have had for years are all issues addressed in the literature review as restraining factors that make consolidation difficult. Through communications, collaboration, demonstration and education the change agent can overcome the existing or perceived restraining factors that exist toward consolidation (FEMA, 2001). What was good for Westchester County in the 1970’s and 80’s no longer works. Economies change, technological advances make it easier for consolidation to be effective and citizens and emergency responders need better, more reliable communication systems that exist today and did not when the current E-911 system was developed.

A consolidated system of fewer PSAP’s will greatly improve the fire and EMS delivery system throughout Westchester County by eliminating excessive transfers of 911 calls to the appropriate agency. The delays associated with this transfer of information between call centers can be translated to more timely dispatch times; time needed to get emergency apparatus and manpower to the scene of the emergency. This consolidated system will also save the taxpayers

the cost of duplicate services, which is important in the declining economic times in which we live as mentioned throughout this paper.

RECOMMENDATIONS

Throughout this report the advantages of a more consolidated, centralized E-911 notification and dispatch system has been stressed. However, Westchester County still stands fast to the concept of a decentralized, community based systems that incorporate 52 PSAP's that are controlled by local police departments. This researcher recommends that the entire system be reevaluated. The original E-911 Executive Implementation Committee Report that was used to set up this cumbersome system should be restudied by a committee representing the same groups that originally were assigned this task. Then a plan be developed that will address the current problem using today's technology.

The possible delays associated with the lack of a unified E-911 notification and dispatch system must be rectified as soon as possible for the safety of responders and citizens alike. To this end there is a recommended plan described in Appendix A that lays out a phased in process designed around a centralized system much like the one looked by the original E-911 Task Force in the early 1980's. It is the hope of this researcher that these recommendations are given serious consideration for the improved response time and overall safety of both responders and citizens in Westchester County.

Future readers of this report should take its recommendations and information and expand and apply the findings to their own notification and dispatch systems. Communications systems trends throughout the country should be studied, new technological advances taken advantage of and in the end the overall safety of their citizens given top priority over jurisdictional and territorial prejudices.

REFERENCES

- Arrington, Randy. (03/24/01). Police want to speed up E-911 consolidation. [On-line]. Available: http://www.sfcav.org/2001_E911_03.htm
- Daily Sentinel. (10/96). October 09: One 911 answering center. [On-line]. Available: <http://www.rny.com/archive/opinion/1996/October/1009one911answeringcenter.html>
- Departmental Overview. (2000). Emergency communications department. [On-line]. Available: <http://www.ci.cambridge.ma.us/~ECD/department.html>
- FEMA. (2001, January). Strategic management of change; Student manual. Emmitsburg, MD: United States Fire Administration.
- Fox, Page Fumo. (07/24/01). 911 plan considers uniting centers. [On-line]. Available: http://www.imakenews.com/willcountynews/e_article000005996.cfm
- Goshen News. (02/15/01). Despite difficulties, cooperation has merit. [On-line]. Available: <http://www.goshennews.com/news/files/2001/02%20-%20February/2-15-2001/edit.html>
- Gourley, Meghan. (08/24/99). Control over 911 operation still a question. [On-line]. Available: http://www.augustachronicle.com/stories/082599/met_124-5738.shtml
- Hagstrom, Jennifer. (1999, February). How do you know? Is your agency a good candidate for consolidation?. Public Safety Communications, 65, 8-11.
- Holt, Francis X. (1990, November). Sharing dispatching. Fire Engineering, 143, 77-79.
- Johnson, J.D., & Snook, J.W. (1997). Making the pieces fit. West Linn, OR: Emergency Services Consulting Group.
- Lorow, Cindy. (1997, June). Consolidation works in Sarasota County, Florida. Public Safety Communications, 63, 54-58.

NFPA. (1997). Consolidation of communication centers. Fire Protection Handbook (18th ed., pp. 10, 195-196). Quincy, MA: National Fire Protection Association.

Osborne, Jonathan. (12/09/00). County says 911 center can be finished in January; city says April. [On-line]. Available:

http://www.caller.com/1999/December/09/today/local_ne/2945.html

Plate, Jennifer. (04/16/96). Sarasota offers local consolidation advice. [On-line]. Available: <http://www.alligator.org/edit/issues/96-sprg/960416/b6coun.htm>

Rausch, Paula. (11/04/99). Joint 911 clears last obstacle. [On-line]. Available: <http://www.gainesvillesun.com/news/articles/11-04-99g.shtml>

Schaefer, Ray. (04/12/00). Campbell opens to consolidation. [On-line]. Available: <http://www.enquirer.com/editions/2000/04/12>

Schaper, Frank C. (1998, July/August). Making a decision: consolidation vs. privatization vs.?. 9-1-1 Magazine, 11, 63.

Westchester County Department of Planning. (2001). Databook 2001. White Plains, NY.

Wilcox, Joe. (08/97). Agencies use computer-aided dispatch for 911 emergencies. [On-line]. Available: <http://www.gcn.com/archives/sl/1997/August/cov1.htm>

Williams, M. (1991, Summer). A strategic approach to managing change. Canadian Business Review. pp. 19-21.

APPENDIX A

CONSOLIDATION PLAN FOR E-911

Westchester County government must take immediate action to implement a phased in approach to the consolidation of the current E-911 notification and dispatch system used for fire and EMS departments

Immediate implementation actions (2002-2004)

1. Establish an E-911 Review Committee made up of representatives from the different Fire and EMS organizations, county and municipal leaders, legal and legislative representatives and technology experts by July 1, 2002.
2. Require the committee to reexamine the original proposal and current E-911 system for ways to improve this notification and dispatch process.
3. Require a final report, to include an operational, legal and cost analysis, to be presented by December 1, 2004 to the County Executive and Board of Legislators.

Future implementation actions (2005-2007)

1. Take the recommendation and place them in the form of a referendum on the 2005 ballot in Westchester County if necessary.
2. If changes are approved allocate Capital funds in the 2006 Capital budget to begin the implementation of the required changes.
3. Complete the updated Fire and EMS notification and dispatch system by the end of the year 2007.

APPENDIX B**E-911 Notification/Dispatch Survey**

County: _____

Year E-911 was instituted. _____

Number of PSAP's in your county: _____

Do the PSAP's also dispatch? Yes No

Are Fire and EMS dispatched from the same location? Yes No

Name and number of contact person if additional information is needed.

Name:

Phone number:

Email:

Fax number:

Would you like a copy of the final report? Yes No

PSAP – Public Safety Answering Point



To: All County Fire Coordinators

From: Patrick Kelly, Fire Coordinator
Westchester County

Re: Information on County Dispatch and E-911 systems

Date: July 18, 2001

I am doing research and would appreciate you taking the time to fill out this questionnaire and mail it back in the envelope provided by August 4, 2001. This research project is being done as part of the Executive Fire Officer Program at the National Fire Academy. The results of this study will be used to prepare an action plan for consolidating the E-911 and dispatch system for Fire and EMS in Westchester County New York.

Thank you for your assistance with this project. If you would like a copy of the final report please check off the appropriate block on the survey.

Firematically,

Patrick T. Kelly

APPENDIX C

E-911 Notification/Dispatch Survey Results

| MUNICIPALITY | CUTOVER DATE | # OF PSAPS | DO PSAP's DISPATCH |
|--------------------|--------------|------------|--------------------|
| Albany County | 10/1/94 | 7 | Yes |
| Allegany County | 9/1/96 | 2 | Yes |
| Broome County | 12/1/92 | 4 | Yes |
| Cattaraugus County | 6/1/93 | 3 | Yes |
| Cayuga County | 8/1/00 | 2 | Yes |
| Chautauqua County | 2/1/94 | 4 | Yes |
| Chemung County | 11/1/94 | 1 | Yes |
| Chenango County | 7/1/98 | 1 | Yes |
| Clinton County | 8/1/94 | 1 | Yes |
| Columbia County | 5/1/95 | 4 | Yes |
| Cortland County | 5/1/94 | 1 | Yes |
| Delaware County | 3/1/02 | 1 | Yes |
| Dutchess County | 9/1/99 | 2 | Yes |
| Erie County | 7/1/88 | 29 | Yes |
| Essex County | 12/1/03 | 1 | Yes |
| Franklin County | 12/1/03 | 1 | Yes |
| Fulton County | 8/1/94 | 4 | Yes |
| Genesee County | 5/1/92 | 3 | Yes |
| Greene County | 4/1/98 | 3 | Yes |
| Hamilton County | 12/1/03 | 1 | Yes |
| Herkimer County | 7/1/99 | 1 | Yes |
| Jefferson County | 7/1/94 | 2 | Yes |
| Lewis County | 12/1/02 | 1 | Yes |
| Livingston County | 3/1/96 | 1 | Yes |
| Madison County | 1/1/98 | 1 | Yes |
| Monroe County | 10/1/83 | 1 | Yes |
| Montgomery County | 10/1/94 | N/R | Yes |
| Nassau County | 8/1/90 | 7 | Yes |
| NYC All 5 Boroughs | 1/1/96 | 1 | Yes |
| Niagara County | 10/1/86 | 6 | Yes |
| Oneida County | 11/1/95 | 3 | Yes |

APPENDIX C

E-911 Notification/Dispatch Survey Results

| MUNICIPALITY | CUTOVER DATE | # OF PSAPS | DO PSAP's DISPATCH |
|---------------------|--------------|------------|--------------------|
| Onodaga County | 10/1/92 | 1 | Yes |
| Ontario County | 4/1/95 | 2 | Yes |
| Orange County | 11/1/97 | 21 | Yes |
| Orleans County | 8/1/92 | 2 | Yes |
| Oswego County | 3/1/97 | 2 | Yes |
| Otsego County | 6/1/99 | 1 | Yes |
| Putnam County | 9/1/98 | 2 | Yes |
| Rensselaer County | 12/1/95 | 2 | Yes |
| Rockland County | 9/1/93 | 9 | Yes |
| St. Lawrence County | 12/1/94 | 1 | Yes |
| Saratoga County | 7/1/88 | 7 | Yes |
| Schenectady County | 6/1/95 | 6 | Yes |
| Schoharie County | 2/1/02 | 1 | Yes |
| Schuyler County | 11/1/96 | 1 | Yes |
| Seneca County | 8/1/01 | 1 | Yes |
| Steuben County | 12/1/03 | 1 | Yes |
| Suffolk County | 1/1/98 | 12 | Yes |
| Sullivan County | 2/1/00 | 1 | Yes |
| Tioga County | 10/1/93 | 1 | Yes |
| Tompkins County | 5/1/97 | 1 | Yes |
| Ulster County | 7/1/94 | 2 | Yes |
| Warren County | 7/1/88 | 1 | Yes |
| Washington County | 10/1/97 | 1 | Yes |
| Wayne County | 10/1/97 | 1 | Yes |
| Westchester County | 7/1/93 | 52 | Yes |
| Wyoming County | 2/1/92 | N/R | Yes |
| Yates County | 6/1/94 | 1 | Yes |

APPENDIX D

Change Management Model